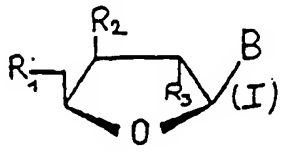
CLAIMS

1. Method for the preparation of 2'- or 3'-deoxy- and 2',3'-dideoxy-β-L-pentofuranocucleoside compounds of formula I:

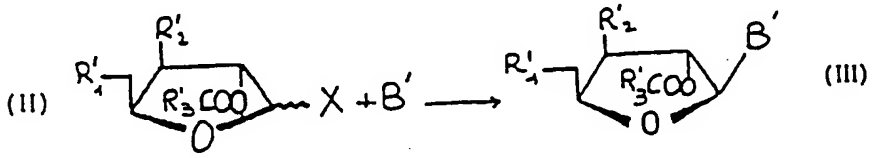


in which

- B represents a purine or pyrimidine base;
- R_1 represents OH;
- R_2 and R_3 represent, independently of each other, H or OH;
- at least one of R_2 and R_3 represents H;

characterized in that the following steps are carried out:

1) a compound of formula (II) is condensed with the base B in order to obtain the compound of formula (III) according to the scheme

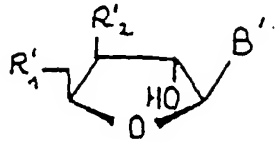


in which formulae (II) and (III)

- R'_1 and R'_2 have the meanings given for R_1 and R_2 except that when R_1 and R_2 represent OH, the said OH group is protected by a protecting group such as an acyl, benzoyl, benzyl or silyl group,
- R'_3 represents a C_1 to C_5 alkyl group or a phenyl radical, which are optionally substituted,
- X is a leaving group such as Cl, Br, I or a C_1 to C_5 acyloxy or alkoxy group,
- B' is a purine or pyrimidine base B which is optionally appropriately protected,

2) the R'_3 CO group at the 2' position is removed by deac tylation so as to obtain an OH group and a

compound of formula



(IV)

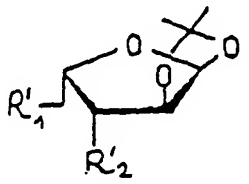
3) optionally, the OH group at the 2' position is removed; and

4) where appropriate, the R'_1 and R'_2 groups and the B' base are deprotected so as to obtain the compounds of formula (I).

2. Method according to Claim 1, characterized in that in the compounds (II) and (III), R'_3 represents a C_1 to C_5 alkyl group, preferably CH_3.

3. Method according to Claim 1 or 2, characterized in that the compound (II), di-O-acetylated at the 1,2 position, in which X and R'_3COO represent an O-acetyl group, is prepared by acetolysis of the 1,2-isopropylidene-L-xylofuranose compound of formula (V)

(V)



4. Method according to one of Claims 1 to 3, characterized in that R'_2 and R'_3COO are different, in particular R'_2 is an O-benzoyl group and R'_3 is an alkyl group.

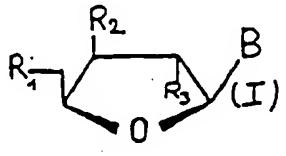
5. Method according to one of Claims 1 to 4, characterized in that the compounds of formula (I) are prepared in which R_2 and R_3 represent H or OH.

6. Method according to one of Claims 1 to 4, characterized in that B represents one of the adenine, guanine, hypoxanthine, uracil, thymine or cytosine bases, it being possible for these bases to be substituted especially by a halogen at the 5 position for cytosine and uracil.

7. Method for the preparation of a compound of formula (I) in which B is cytosine according to one of Claims 1 to 6, characterized in that a compound of

formula (I) is prepared in which B is uracil according to the method of Claims 1 to 6 and the uridine derivative is converted to a cytidine derivative by converting uracil to cytosine.

8. Stereoisomeric β-L-pentofuranonucleoside compounds corresponding to the following formula

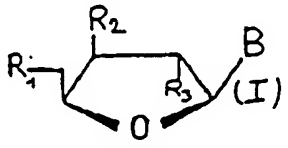


in which

- B has the meaning given in one of Claims 1 and 6, R_1 represents OH and,
  - either R_2 represents OH and R_3 represents H,
  - or R_2 represents H and R_3 represents OH.

9. Compounds according to Claim 7, characterized in that B represents uracil, 5-fluorouracil, hypoxanthine, 5-fluorocytosine, guanine or adenine.

10. Stereoisomeric 2',3'-dideoxy-β-L-pentofuranonucleoside compounds corresponding to the formula (I)



in which:

. R_1 represents OH

. R_2 and R_3 represent H and

. B represents uracil, guanine, hypoxanthine, b fluorocytosine, fluorocytosine.

11. Compound according to Claim 10, which is chosen from β-L-ddU, β-L-5 fluoro-ddU, β-L-5-fluoro ddC.

12. Use of the compounds according to one of Claims 8 to 11, as a drug.

13. Use of the compounds according to one of Claims 8 to 11, as an antiviral drug.

14. Use of the compounds according to one of Claims 8 to 11, as an antiviral drug which is useful for the

treatment of AIDS.

15. Use of β-L-5-fluoro ddC according to Claim 14, as antiviral agent.

16. Use of β-L-5-fluoro ddC according to Claim 15, as anti-HIV agent.